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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,576	11/28/2003	Thomas Happ	543822002600	4966

25227 7590 05/05/2006  
MORRISON & FOERSTER LLP  
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MCLEAN, VA 22102

EXAMINER

MCLEAN MAYO, KIMBERLY N

ART UNIT	PAPER NUMBER
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2187

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/722,576	<b>Applicant(s)</b> HAPP ET AL.	
	<b>Examiner</b> Kimberly N. McLean-Mayo	<b>Art Unit</b> 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. The enclosed detailed action is in response to the Amendment submitted on February 17, 2006.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not describe the claimed feature of bringing the PMC memory cells into states of different storage permanence by correspondingly selecting a current intensity or a duration of a programming pulse or a number of programming pulses in a way to enable one skilled in the art to make and/or use the invention. The specification describes bringing the PMC memory cells into states of different storage permanence by correspondingly selecting a current intensity and a duration of a programming pulse and a number of programming pulses, refer to page 9, entire. The claimed features recites wherein depending on the specific mode selected the PMC memory component is brought into states of different storage permanence by correspondingly selecting a current intensity and/or a duration of a programming pulse, and/or a

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number of programming pulses. Accordingly the specification must be enabling for the "and" configuration AND the "or" configuration.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 11-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tuan (USPN: 4,380,803).

Regarding claim 11, Tuan discloses a memory component (Figure 1); and a controller adapted to operate the memory component in at least one of several modes (C 2, L 18-27; selection means).

Regarding claim 12, Tuan discloses one of the possible modes is a soft writing mode (RAM-read/write) (C 1, L 19-24; C 6, L 30-67; C 7, L 1-9).

Regarding claim 14, Tuan discloses one of the possible modes is a hard writing mode (ROM; write once mode) (C 1, L 25-30; C 5, L 61-68; C 6, L 1-29).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tuan (USPN: 4,380,803) in view of Hu (USPN: 5,768,182).

Tuan discloses the limitations cited above in claim 11, however, Tuan does not disclose a non-volatile writing mode. Hu discloses a non-volatile writing mode (Abstract; C 2, L 58-62). This feature taught by Hu provides flexibility and reliability by allowing the data to be retained upon a power loss. Tuan's system discloses a mode of operating wherein the data is retained upon a power loss, however, in this mode of operation, data can only be written once. Hence, one of ordinary skill in the art would have recognized this limitation in Tuan's system and would have been motivated to add a non-volatile mode of operation wherein data is retained upon a power loss and wherein the data can be rewritten for the desirable purpose of flexibility. Depending on the design of a system, some of the data may require writing once and retention upon a power loss, wherein other data may require retention and over writing capabilities and other data may just require over writing capability.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tuan (USPN: 4,380,803) in view of Moore et al. (US2002/0127886)

Tuan discloses the limitations cited above in claims 1 and 11, however, Tuan does not disclose the memory component comprising PMC memory cells. Moore teaches that PMC cells contain fast ion conductors thereby providing efficiency and reliability. Hence, it would have been

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obvious to one of ordinary skill in the art to use PMC memory cells in the system taught by Tuan for the desirable purpose of efficiency and reliability.

***Allowable Subject Matter***

10. Claims 1-10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action.

***Response to Arguments***

11. Applicant's arguments filed have been fully considered but they are not persuasive. Regarding claim 11, Tuan discloses the limitations cited above as indicated above. Claim 11 does not entail the details of claim 1. Claim 11 only calls for a memory and a controller to operate the memory in one of several modes.

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

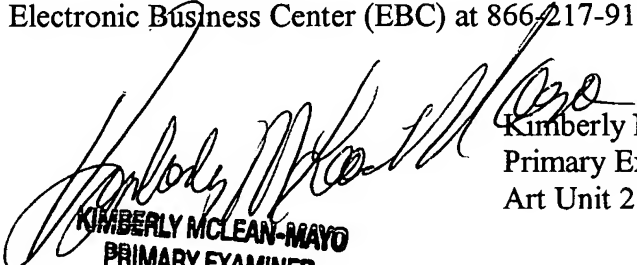
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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly N. McLean-Mayo whose telephone number is 571-272-4194. The examiner can normally be reached on Mon, Wed, Thurs (10-4), Tues (9:45 - 6:15).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 571-272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Kimberly N. McLean-Mayo  
Primary Examiner  
Art Unit 2187  
**KIMBERLY MCLEAN-MAYO**  
**PRIMARY EXAMINER**

KNM

April 22, 2006